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मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 10694-4 (1983): General Requirements for Rims for Automotive Vehicles, Part 4: Scooter and Scooter Derivative Rims [TED 7: Automotive Tyres, Tubes and Rims]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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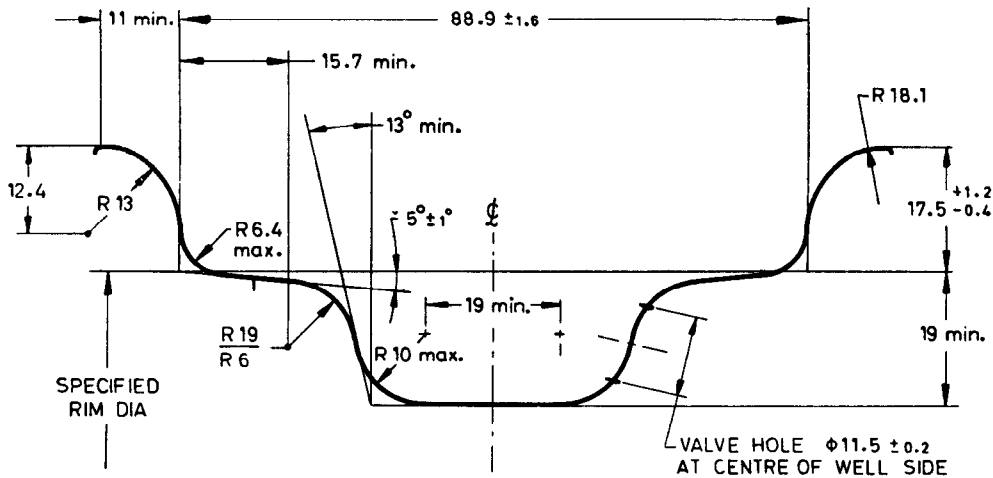


Tyres, Tubes and Rims Sectional Committee, EDC 83; Tyres and Rims for Light Duty Vehicles such as Passenger Cars, Motorcycles, Scooters, Mopeds and Bicycles Subcommittee, EDC 83 : 2 [Ref : Doc : EDC 83/38 (3026)]

Indian Standard

GENERAL REQUIREMENTS FOR
RIMS FOR AUTOMOTIVE VEHICLES
PART 4 SCOOTER AND SCOOTER DERIVATIVE RIMS

1. **Scope** — Covers contours and general requirements for scooter and scooter derivative rims.
2. **Dimensions** — Contours for scooter and scooter derivative rims with dimensions shall be as given in Fig. 1 and Tables 1 and 2.



All dimensions in millimetres.
FIG. 1 RIM CONTOUR 3.50D WELL BASE

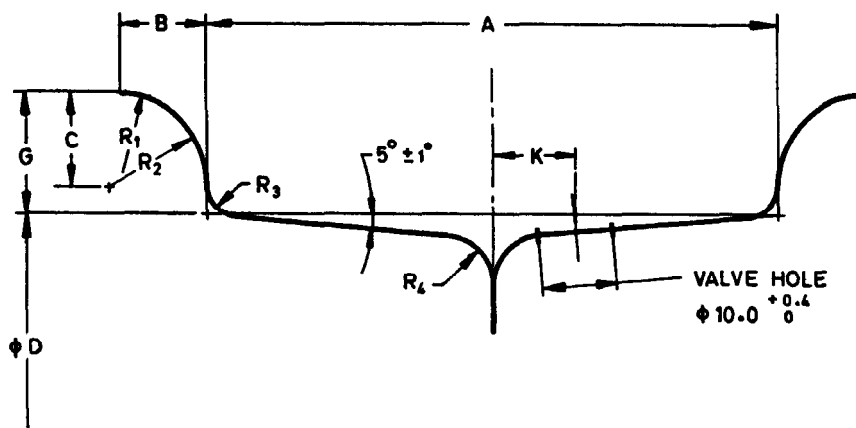
3. **Rim Diameters and Width Codes** — Rim diameter and width code combinations in use are according to Table 3.
4. **Rim Circumference Measurement** — The bead seat rim circumference measurement shall be carried out using a tape gauge whose length is related to a mandrel diameter which is that of the specified rim diameter, *D*. The mandrel dimensions are given in Tables 4 and 5.
- 4.1 The measurement shall be carried out according to the method laid down in IS : 10694 (Part 1)-1984 'General requirements for rims for automotive vehicles : Part 1 Rim nomenclature, designation, marking and measurement'.
5. **Designation** — The size designation of wheels/rims shall include figures and alphabets representing the following in the order given:
- a) Nominal rim width code,
 - b) Rim flange profile designation, and
 - c) Nominal rim diameter code.
- 5.1 An alphabet signifies the tyre side profile of the rim flange. Usually the profile designation follows the nominal rim width code. It may, however, precede or include the nominal rim width code.
- Example:*
2.50C × 10
6. **Marking** — The rim size designation shall be marked on the rim according to IS : 10694 (Part 1) - 1984.
7. **Other Requirements** — The rims shall have a smooth contour free from sharp edges on the tyre side.
- 7.1 The valve hole edges on the rims shall be free from burrs.

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| Adopted 28 October 1983 | © April 1984, BIS | Gr 3 |
|-------------------------|-------------------|------|

TABLE 1 CONTOUR DIMENSIONS FOR DIVIDED RIMS

(Clause 2)

All dimensions in millimetres.



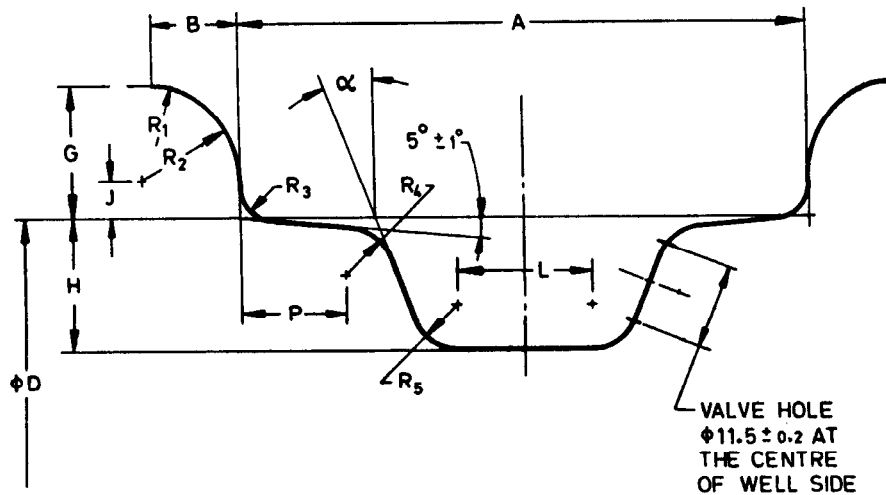
| Nominal Rim Width Code | A +1.5 -1.0 | B Min | G +1.0 -0.5 | Q* Min | C Ref | R ₁ | R ₃ Max | R ₄ Max | R ₁ Max | K Min |
|------------------------|-------------------|----------|-------------------|-----------|----------|----------------|-----------------------|-----------------------|-----------------------|----------|
| 2.10 | 53.5 | 7.0 | 12.0 | 12.5 | 7.0 | 7.0 | 3.0 | 5.0 | — | 8.0 |
| 2.15 | 54.5 | 8.5 | 15 | 12.5 | 10.0 | 12.5 | 3.0 | 5.0 | — | 8.0 |
| 2.50 C | 63.5 | 10.0 | 16.0 | 12.5 | 11.5 | 12.0 | 3.5 | 5.0 | 7.5 | 9.0 |
| 3.00 D | 76.0 | 11.5 | 17.5 | 14.0 | 12.5 | 13.0 | 4.5 | 6.5 | 10.5 | 11.0 |

*For off-centre naves, where the value is the minimum width for tapered bead seat.

TABLE 2 CONTOUR DIMENSIONS FOR DROP CENTRE RIMS

(Clause 2)

All dimensions in millimetres.



| Nominal Rim Width Code | A ±1.5 | B | | G +1.0 -0.5 | H +1.0 0 | P +2.0 0 | L Min | J | R ₂ | R ₃ Max | R ₄ Min | R ₅ Min | R ₁ | α Degrees 0 -5 |
|------------------------------|-----------|------|------|-------------------|----------------|----------------|----------|---|----------------|-----------------------|-----------------------|-----------------------|----------------|-------------------------|
| | | Min | Max | | | | | | | | | | | |
| 3'00 D | 76.0 | 11.5 | 15.5 | 17.5 | 18.0 | 14.0 | 18.0 | 5 | 13.0 | 4.5 | 6.5 | 3.0 | 8 | 18 |

TABLE 3 RIM DIAMETER AND WIDTH CODE COMBINATIONS

(Clause 3)

| Nominal Rim Width Code | Nominal Rim Diameter Code | 8 | 10 |
|------------------------------|----------------------------------|-------|-------|
| | Specified Rim Diameter, D, mm | 202.4 | 253.2 |
| 2'10 | | X | X |
| 2'15 | | X | X |
| 2'50C | | | X |
| 3'00D | | X | |
| 3'00D Well base | | | X |
| 3'50D Well base | | | X |

Note — Cross mark indicates nominal rim diameter code and specified rim diameter corresponding to nominal rim width code.

**TABLE 4 TAPE MANDREL DIMENSIONS FOR RIM CIRCUMFERENCE
MEASUREMENTS FOR DIVIDED RIMS**
(Clause 4)

All dimensions in millimetres.

| Nominal Rim Diameter Code | Specified Rim Diameter, <i>D</i> | Taping Diameter | Taping Circumference ± 1.2 | Taping Position | *Tape Mandrel Diameter | *Tape Mandrel Circumference | Diameter of Ball Tape for Rim Measurement |
|---------------------------|----------------------------------|-----------------|--------------------------------|-----------------|------------------------|-----------------------------|---|
| 8 | 202.4 | 201.7 | 633.8 | 3.7 | 202.1 | 634.9 | 8.0 |
| 10 | 253.2 | 252.6 | 793.4 | 3.7 | 252.9 | 794.5 | 8.0 |

*Mandrel dimensions include a plus tolerance of 0.4 mm on diameter and 1.2 mm on circumference.

**TABLE 5 TAPE MANDREL DIMENSIONS FOR RIM CIRCUMFERENCE
MEASUREMENTS FOR WELL BASE RIMS**
(Clause 4)

All dimensions in millimetres.

| Nominal Rim Diameter Code | Specified Rim Diameter, <i>D</i> | Taping Diameter | Taping Circumference ± 1.2 | Taping Position | *Tape Mandrel Diameter | *Tape Mandrel Circumference | Diameter of Ball Tape for Rim Measurement |
|---------------------------|----------------------------------|-----------------|--------------------------------|-----------------|------------------------|-----------------------------|---|
| 10 | 253.4 | 252.4 | 792.9 | 4.6 | 252.7 | 793.8 | 10 |

*Mandrel dimensions include a plus tolerance of 1.2 mm on circumference.

EXPLANATORY NOTE

Wheels/rims for all types of vehicles are being manufactured in the country. This Indian Standard has been issued in order that the manufacturers follow uniform rim profiles for proper fitment of tyres and become familiar with the size designations and other markings.

This standard (Part 4) is one of a series of Indian Standards pertaining to rims for various types of automotive vehicles. The standards in this series are:

IS : 10694 (Part 1)-1984 General requirements for rims for automotive vehicles : Part 1 Rim nomenclature, designation, marking and measurement

IS : 10694 (Part 2)-1983 General requirements for rims for automotive vehicles : Part 2 Passenger car rims

IS : 10694 (Part 3)-1983 General requirements for rims for automotive vehicles : Part 3 Commercial vehicle rims

IS : 10694 (Part 4)-1983 General requirements for rims for automotive vehicles : Part 4 Scooter and scooter derivative rims

IS : 10694 (Part 5)-1983 General requirements for rims for automotive vehicles : Part 5 Motorcycle and motorcycle derivative rims

**IS : 10694 (Part 6)-1984 General requirements for rims for automotive vehicles : Part 6
Agricultural tractor rims**

**IS : 10694 (Part 7)-1983 General requirements for rims for automotive vehicles : Part 7 Industrial
truck rims**

**IS : 10694 (Part 8)-1983 General requirements for rims for automotive vehicles : Part 8 Earth-
moving machine rims**

Keeping the exports of vehicles in view and for harmonization of standards, efforts have been made to refer to European Tyre and Rim Technical Organization (ETRTO) Standards.

These standards do not lay down methods of testing and performance requirements for wheels/rims. These lay down only the rim profiles and other general requirements. For passenger car wheels and truck and bus wheels/rims, reference may be made to the following standards for methods of testing and performance requirements:

IS : 9436-1980 Performance requirements and methods of test for wheels for passenger cars

**IS : 9438-1980 Performance requirements and methods of test for wheels/rims for trucks and
buses**